

In the Claims

1 (currently amended). A method for screening for, detecting or diagnosing large granular lymphocyte (LGL) leukemia or an autoimmune disorder in a person or animal, said method comprising obtaining a biological sample from said person or animal, and screening for or detecting upregulated expression in said biological sample of a one or more gene or genes, or a gene product thereof, whose expression is upregulated in a leukemic LGL cell, wherein said gene or gene product whose expression is upregulated is selected from the group consisting of spingosine-1-phosphate receptor; granzyme A; granzyme B; granzyme H; granzyme K; cathepsin C; cathepsin W; calpain small subunit; caspase-8; perforins; A 20; phosphatase in activated cells (PAC-1); NGK2 receptors; RANTES; MIP-1alpha; MIP-1beta; IL-1 beta; IL-8; IL-1Ra; IFN-gamma; IL-18; IL-10; and IL-12 p35 and/or screening for downregulated expression of a gene or genes, or a gene product thereof, whose expression is downregulated in LGL.

2-3 (canceled).

4 (original). The method according to claim 1, wherein the expression of at least five, at least 10, at least 15, at least 20, at least 25, at least 30, at least 35, or at least 40 genes or gene products whose upregulation is present in a leukemic LGL cell is determined.

5 (canceled).

6 (original). The method according to claim 1, wherein said biological sample is selected from the group consisting of bone marrow, lymph node, spleen, peripheral blood, lymph fluid, serous fluid, urine, and saliva.

7-18 (canceled).

19 (new). The method according to claim 1, wherein said gene or gene product whose expression is upregulated is granzyme B.

20 (new). The method according to claim 1, wherein said screening or detecting step comprises assaying RNA from a cell from said biological sample for increased levels of RNA expression of said gene or genes compared to levels of RNA expression of said gene or genes from a normal LGL cell or a non-LGL cell.

21 (new). The method according to claim 20, wherein the level of expression of said RNA is assayed using reverse transcription-polymerase chain reaction (RT-PCR) assay, cDNA or oligonucleotide microarray assay, or Northern blot assay.

22 (new). The method according to claim 1, wherein said screening or detecting step comprises assaying for increased levels of expression of said gene product compared to levels of expression of said gene product from a normal LGL cell or a non-LGL cell.

23 (new). The method according to claim 22, wherein the level of expression of said gene product is assayed using an antibody that binds said gene product.

24 (new). The method according to claim 23, wherein the level of expression of said gene product is assayed using said antibody in an ELISA assay, a Western blot assay, or a protein array assay.